## **Operations with Functions**

Not all rules can be combined, rules that are functions can be

If f and g are two functions with a common domain, then the sum of f and g, is defined to be:

$$(f+g)(x) = f(x) + g(x)$$

The difference of f and g is defined by: (f - g)(x) = f(x) - g(x)

and

the quotient of f and g is defined by  $(f/g)(x) = \frac{f(x)}{g(x)}$  where g(x) cannot be zero.